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ABSTRACT

In 1984-85, the New York City Public Schools received $2,374,686 from the state legislature to operate the School Community Education Program (also known as the Umbrella Program). The program consisted of 46 different projects designed to provide innovative solutions to local educational and school problems. Three computer literacy projects and four prekindergarten programs are evaluated in this volume of a four-volume set. Each evaluation report describes the project briefly, identifies the evaluation methodology, presents the findings, and provides recommendations for improvement. Copies of program-developed assessment instruments are provided when appropriate. The projects evaluated in this volume are: (1) Project LOGIC (LOGO Computer Language, elementary level); (2) the East Harlem Pre-Kindergarten Center Project (enrichment, 3- and 4-year-olds); (3) Brooklyn College Tutorial Center (prekindergarten programs--regular and gifted--and parents' program); (4) the Computer Word Processing Program (word processing, grades 7-9); (5) the Computer Literacy Program (basic computer knowledge and career information, grades 3-9); (6) the Parent Cooperative Nursery Program (learning disability prevention, prekindergarten); and (7) the Pre-School Gifted and Talented at Brooklyn College Tutorial Center Project (creativity and problem-solving skills, gifted prekindergarten children and parents). (PGD)

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SCHOOL COMMUNITY EDUCATION PROGRAM

IN NEW YORK CITY
1984-85

VOLUME II

OEA Evaluation Report

EA 019 129

FINAL EVALUATION REPORT

Robert Tobias, Administrator
John Schoener, Senior Manager

December, 1986

SCHOOL COMMUNITY EDUCATION PROGRAM

IN NEW YORK CITY
1984-85

VOLUME II

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INTRODUCTION

In 1984-85, the New York City Public Schools received $2,374,686 in funding from the New York State Legislature to operate the School Community Education Program (also known as the Umbrella Program). It consisted of 46 different projects designed to provide innovative solutions to local educational and school problems.

The program provided services to about 12,940 participants in the 32 Community School Districts. The majority of these participants (11,613) were elementary and high school pupils. In addition, 238 pre-school children, 929 teachers and supervisors, and 160 community adults took part in the Umbrella Program.

Evaluation reports are presented in four volumes. Volume I contains evaluations for 13 projects which provided reading, mathematics, writing and English instruction. Volume II includes evaluations for three computer literacy projects and four pre-kindergarten programs. Volume III contains evaluations for 13 projects on social, ethnic and environmental studies and instruction on communications and the arts. The remaining 13 projects, presented in volume IV, provided a variety of educational experiences to students, teachers and supervisors. Seven of these projects were designed for staff development training, two offered career orientation counseling, one provided parenting skills instruction to students with children and the other three projects sought to improve attendance, memory and health among participants.

Each report contains a brief project description, describes the evaluation methodology, presents the findings, provides recommendations for improvement and includes copies of program-developed assessment instruments. The reports are listed in order of budgeted function number in the Table of Contents.

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#5001-48-53407

PROJECT LOGIC, 1984-85

School-Community Education Program
Program Administrator: Jack Isaacs
Project Coordinator: Phyllis Gonon

Prepared by:
Office of Educational Assessment
New York City Public Schools

PROJECT DESCRIPTION

Project LOGIC (LOGO for the Gifted Increases Creativity) provides instruction in the computer language LOGO* to gifted elementary school children in Community School District (C.S.D.) 18. Its purpose is to introduce computers to gifted students for the development of logical and creative thinking skills. An additional objective is to train teachers in computer literacy.

In 1984-85, 379 students from six schools in C.S.D. 18 took part in the program. Gifted students in 16 kindergarten through second-grade classes were selected to participate. Working in groups of two or three, they spent 45 to 60 minutes on the computer once a week. After learning the basic LOGO commands, the pupils used them to carry out projects that required a wide range of problem-solving and higher-level thinking skills. An additional component provided training for 12 teachers from C.S.D. 18 in using the computer and developing curriculum to incorporate the computer in class. Project LOGIC was staffed

*LOGO is a simple computer language designed to introduce children to programming and higher order thinking skills. With it they can draw figures and lines on the screen in response to simple English commands.

by a coordinator, who provided training and instruction, and an office aide. The New York State Legislature provided $39 thousand to fund the project.

The objective for 1984-85 was for participating students to demonstrate a knowledge of the computer language LOGO. Specifically, 80 percent of participants were to show gains of 50 percent from pretest to posttest on a project-developed test of computer knowledge.

EVALUATION METHODOLOGY

Project impact was assessed by an analysis of students' scores on a project-developed test of LOGO and general computer knowledge. Two forms of this test were used: kindergarten and first-grade pupils were given the Early Childhood Test, and second-graders were given the Project Logic Test (see Appendices A and B). The tests were administered on a pre- and posttest basis at the beginning and end of the school year.

FINDINGS

Pre- and posttest scores were reported for 348 students (See Table 1). All pupils made gains from pretest to posttest, but the scores differed greatly among the three grades. Second-graders showed the greatest mean gain (60 percent), but their pretest scores were much lower than the other grades. Although first-graders made the smallest gains (28 percent), their pretest scores were too high to permit great improvement. Kindergarteners made mean gains of 40 percent, but again their pretest

TABLE 1

Gifted Students' Mean Gains on Program-Developed Test, by Grade
Project LOGIC, 1984-85

		Mean Scores[a]					
		Pretest		Posttest			
Grade	N	Raw Score	%	Raw Score	%	Gain	%
K[b]	106	13	52%	23	92%	10	40%
1	115	17	68	24	96	7	28
2	127	6	24	21	84	15	60
TOTAL	348	12	48	23	92	11	44

[a] Perfect raw score = 25

[b] Includes first-grade scores from P.S. 208 reported with kindergarten scores.

- All grades made mean gains from pretest to posttest.
- Second graders, who scored lowest at pretest, made the greatest posttest gains.

scores were too high to allow further growth. Analyzed another way, the data showed that 82 percent of second-graders, 31 percent of kindergarteners, and only four percent of first-graders achieved the program-set criterion of 50 percent improvement (See Table 2).

CONCLUSIONS AND RECOMMENDATIONS

The findings show that the project did not achieve its objective of a 50 percent gain in student performance on the project-developed test. However, kindergarten and first-grade scores were too high at pretest to permit this degree of growth. It is recommended that project staff revise the Early Childhood form of the test, eliminating those items that pupils know at pretest. In addition, different forms should be developed for kindergarten and first grade.

TABLE 2

Gains of Gifted Students on Program-Developed Test, by Grade
Project LOGIC, 1984-85

Grade	N	Students Showing Gains from Pretest to Posttest				
		10-19%	20-29%	30-39%	40-49%	50% or more
K	105[a]	7 (7%)	18 (17%)	17 (16%)	31 (30%)	33 (31%)
1	115	15 (13%)	55 (52%)	27 (23%)	13 (11%)	5 (4%)
2	127	1 (1%)	3 (2%)	9 (7%)	10 (8%)	104 (82%)

[a] Includes 25 students in kindergarten and grade one reported together by P.S. 208.

- Improvement varied greatly from grade to grade.
- Eighty-two percent of second-graders but only four percent of first-graders met the program objective of 50 percent improvement from pretest to posttest.

PROJECT Logic

C.S.D18, Bklyn.

APPENDIX A

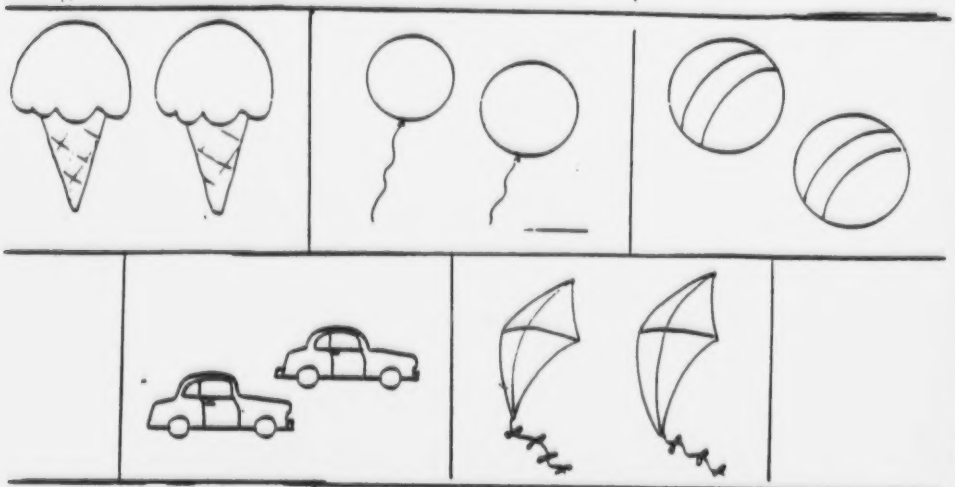
Name 5340/

School Class

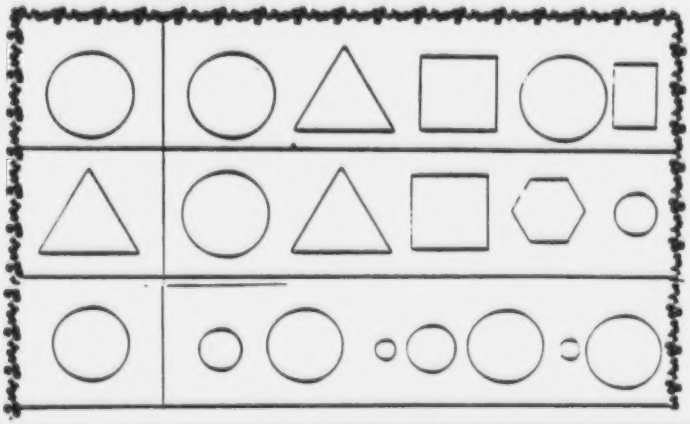
Early Childhood Pretest

CITYWIDE UMBRELLA PROJECT/ LOGO COMPUTER PROGRAM

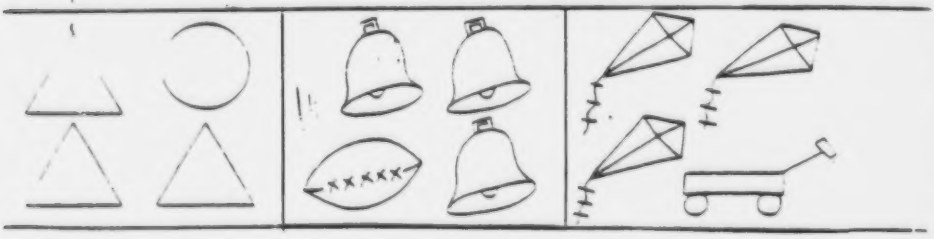
Directions: Draw a ring around the objects on the left. Color the objects on the right. (to be given orally)

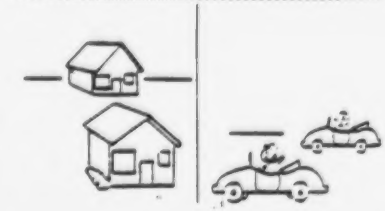


Directions: Color the objects that are exactly the same as the first object.



Directions: Put an X on the object that is different than the others.

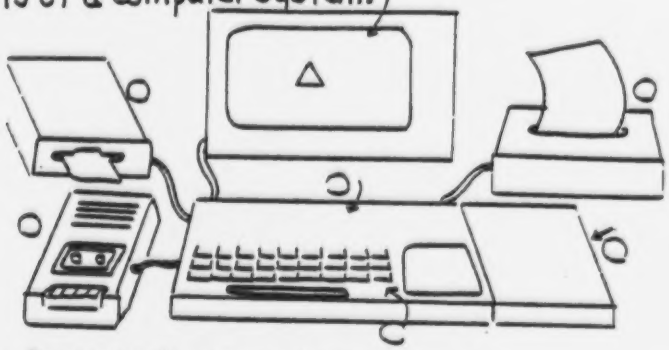




Circle the letter you hear :

L E F S	D B P T	E H I L	R P A G

Parts of a Computer System:



1. Draw a circle around the computer
2. Color Logo's turtle green
3. Make an X on the monitor
4. Color the keyboard yellow

Circle the correct answer :
Which is LOGO's turtle?

□ ?

△

What command do we use to erase everything on the screen

NT CS

NO ?

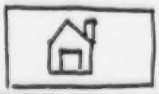
What do we use to make the turtle move without drawing?

NT PU

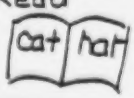
DD ?

What can't a computer do?

Draw



Read



Eat

?

DISTRICT 18

PROJECT Magic

Name _____

School _____ Class _____

PRETEST

Instructions - Darken the space next to the answer which best completes each statement. Pick the best answer, but do not guess. If you do not know the answer darken the space next to "don't know".

1. A computer is-
   - O a. a machine that can think
   - O b. a device for storing, updating and using information
   - O c. a mechanical brain
   - O d. don't know

2. All of these are computer languages except -
   - O a. logo
   - O b. telefon
   - O c. basic
   - O d. don't know

3. A simple language used to create graphics is -
   - O a. basic
   - O b. logo
   - O c. Sanskrit
   - O d. don't know

4. The physical equipment which makes up a computer system is called -
   - O a. hardware
   - O b. software
   - O c. silverware
   - O d. don't know

5. Discs, tapes and other programs are called
   - O a. media
   - O b. software
   - O c. hardware
   - O d. don't know

6. Input means -
   - O a. answers given by the computer
   - O b. electrical impulses from a computer
   - O c. data sent to the computer
   - O d. don't know

7. A keyboard is found on a
   - O a. piano
   - O b. computer
   - O c. typewriter
   - O d. all of the above

8. A computer program is
   - O a. what the computer tells you
   - O b. a set of instructions
   - O c. a t.v. program
   - O d. don't know

9. Diskettes and tapes can be used to..
   - O a. record programs
   - O b. play music
   - O c. wrap packages
   - O d. don't know

10. On the computer a "cursor" is
    - O a. an arrow
    - O b. a flashing box
    - O c. someone who says "bad" words
    - O d. don't know

11. In computer language a command is
    - O a. a direction that the computer already knows
    - O b. an instruction
    - O c. an order
    - O d. don't know

BEST COPY AVAILABLE

12. To use LOGO we need at least

- a. 32k
- b. 8k
- c. 16k
- d. don't know

13. In LOGO, a turtle is

- a. a triangle
- b. a small green animal
- c. a square
- d. don't know

14. To make "turtle" appear type -

- a. HELLO, TURTLE
- b. TO TURTLE
- c. TELL TURTLE
- d. don't know

15. To program "turtle" which command should you use?

- a. RUN
- b. TO___
- c. TELL TURTLE
- d. don't know

16. To make the "turtle" invisible type in -

- a. NO TURTLE
- b. TELLSPRITE
- c. HIDE TURTLE
- d. don't know

17. To make "turtle" move without writing, type...

- a. DON'T WRITE
- b. PENUP
- c. PENERASE
- d. don't know

18. The commands
FD50, RT72, D50, RT72, FD50, RT72, FD50, RT72, FD50, RT72 will make a

- a. pentagon
- b. circle
- c. square
- d. don't know

19. In TI LOGO, a "sprite" is

- a. a ghost
- b. an invisible thing you can talk t
- c. a soft drink
- d. don't know

20. "OUT OF INK" means...

- a. needs more information
- b. does not understand
- c. has used up all available memory
- d. don't know

21. How many colors are available on our computer?

- a. 5
- b. 16
- c. 32
- d. don't know

22. LOGO has _____ "sprites"

- a. 5
- b. 16
- c. 32
- d. don't know

23. How many "sprites" does LOGO already know the shape of?

- a. 5
- b. 16
- c. 32
- d. don't know

24. To make "sprites" move, type...

- a. RUN
- b. SETSPEED
- c. SETHEADING
- d. don't know

25. The command to give a "sprite" a sha is...

- a. CARRY
- b. SHAPE
- c. SETSHAPE
- d. don't know

#5001-48-53416

EAST HARLEM PRE-KINDERGARTEN CENTER, 1984-85

School-Community Education Program
Program Administrator: Jack Isaacs
Project Coordinator: Dorothy Bowser

Prepared by:
Office of Educational Assessment
New York City Public Schools

PROJECT DESCRIPTION

The East Harlem Pre-Kindergarten Center Project was designed as an enrichment program for three and four-year old children in the East Harlem area. The program was basically designed to build specific skills in areas such as language arts, problem solving, sensory awareness, fine and gross motor coordination and physical development, as well as helping to develop a positive self-image in the participants.

Pre-school programs were operated at four sites in Community School District 4. These were: PS 112 (2 classes, one in the morning and one in the afternoon, PS 171 (one class, all day), PS 109 River East Elementary Bicultural Mini School (one class, all day) and one all-day class at the Bilingual Bicultural Mini-school. The half-day classes were for three-year olds while the full-day classes were for four-year olds. Children attended classes five days a week at all four schools. Twenty students and one teacher for each class at each school were selected for participation in the program.

Participants were selected from families who had older children in the school and who displayed low achievement; and from families where both parents worked. Project staff consisted of one early childhood teacher for each class and a paraprofessional. In addition, one family associate served as a liaison between the school and the community to help parents support and reinforce program activities. Parents also attended monthly workshops involving information on health, welfare, housing, child care, and child development. The New York State Legislature contributed $101 thousand to fund the program.

The specific objective for the 1984-85 period was that by June 30, 1985, seventy-five percent of the participants would evidence an improvement in readiness and developmental skills as measured by the participants' pre- and posttest scores on the Boehm Test of Basic Concepts.

EVALUATION METHODOLOGY

Evaluation activities focused on analysis of the participants' performance on the Boehm Test of Basic Concepts (1971). This is a standardized test designed to measure a child's mastery of 50 basic language concepts considered a pre-requisite for the child to profit from school instruction. The children were pre-tested in October, 1984 and posttested in May, 1985. It was anticipated that they would achieve higher posttest scores.

FINDINGS

Pre- and posttest scores were submitted for 79 students. Table 1 shows that participants at all four sites achieved gains on their posttest score on the Boehm Test compared to their pretest scores. These gains ranged from eight percent to 52 percent. The largest gains (40 percent and 52 percent) were exhibited by the two half-day classes held at PS 112, which were comprised of three-year olds. The other all-day classes were comprised of four-year olds.

CONCLUSION AND RECOMMENDATIONS

The findings indicate that participants at all four sites achieved this year's objective. It is suggested that the objective be rewritten to state how much of an improvement in the Boehm Test indicates successful program completion. The following criterion is suggested "For 88 percent of the participants, posttest scores will show an improvement of at least twenty percent over pretest scores."

Also, as the greatest gain was exhibited by three-year old participants, it might be more advantageous to include more three-year old participants in this program.

TABLE 1

[a]

Students' Mean Scores by School
Boehm Test of Basic Concepts
East Harlem Pre-Kindergarten Center, 1984-85

School	N	Pretest		Posttest		Percent Gain
		Raw Score	Percent Score	Raw Score	Percent Score	
River East (all day)	13	34	68%	40	80%	12%
Bilingual Cultural Mini School (BBMS) (All day)	16	32	64	36	72	8
Patrick Henry Prep (All day)	14	22	44	34	68	24
PS 112						
AM	18	21	42	41	82	40
PM	18	8	16	34	68	52
TOTAL	79	23.4	47	37	74	27

[a] Perfect Raw Score = 50

- Children at all sites achieved posttest gains ranging from eight percent to 52 percent.

#5001-48-53419

BROOKLYN COLLEGE TUTORIAL CENTER, 1984-85

School-Community Education Program
Program Administrator: Jack Isaacs
Project Coordinator: Paula Longo

Prepared by:
Office of Educational Assessment
New York City Public Schools

PROJECT DESCRIPTION

The Brooklyn College Tutorial Center provided three related programs for residents of Community School District (C.S.D.) 15. Activities at the Center include a Pre-Kindergarten Program, a Pre-Kindergarten Program for the Gifted, and a Parenting Program for parents of participants. A total of forty, four-year old children participated in the program. Criteria for selection of children in both programs were: 1) they must be three years, nine months to four years, eight month of age; and, 2) children must live in District 15. In addition, participants in the Pre-Kindergarten Gifted Program were identified as gifted through a screening test and performance on the Slosson Intelligence Test.

Instruction in the Pre-Kindergarten Program focused upon school readiness skills, such as listening, oral expression, direction following, auditory discrimination, matching, and identification and marking of exemplars of geometric, size, and positional concepts. Other skills taught included cutting, pasting, folding and enrichment activities such as opportunities

to learn to play the violin or to learn a foreign language (Italian).

The Pre-Kindergarten Program for the gifted was designed to focus upon various conceptualization and analytic skills through the use of the "Peabody Language Development Kit, Level P". Enrichment activities were also available for these children.

The parenting workshop was designed to broaden parents' knowledge of child development; to provide instruction in parenting skills such as reflective listening and examination of reasons for and approaches to children's misbehavior, and to encourage parents to read to their children. The workshops also included lectures on pertinent topics (e.g., nutrition).

Project staff included two regular teachers and a parent program assistant. The New York State Legislature contributed $126 thousand toward personnel expenses and educational supplies.

PROGRAM OBJECTIVES AND EVALUATION

The objective was for participants to increase their knowledge of basic concepts necessary for achievement in school, as measured by pre- and posttest scores on the Boehm Test of Basic Concepts. This test indexes understanding of concept inclusion and relational terms; children respond by circling a picture representing the concept which has been orally presented to them.

Children were pretested in September, 1984, and posttested in June, 1985. No assessment of the parenting component was conducted.

FINDINGS

Pretest and posttest outcomes on the Boehm Test of Basic Concepts were submitted for forty children. Although two data retrieval forms were sent to the Office of Educational Assessment, they did not indicate the program (regular pre-kindergarten or pre-kindergarten for the gifted) in which these children participated. Table 1 shows that all participants achieved a significant gain on the Boehm Test of Basic Concepts. Pretest mean raw score was 25.9 points (52 percent correct responses); posttest mean score was 37.8 (76 percent correct), for a gain of about 12 points, or 24 percent.

CONCLUSIONS AND RECOMMENDATIONS

The evaluation findings indicate that the program had an impact on children's performance. All participants achieved a significant gain between the pre- and posttest. However, as the data submitted for evaluation failed to indicate the program in which each group of children participated, it was not possible to evaluate the impact of each program component. In the future, project staff should provide pertinent test information to properly evaluate the program.

In addition, a quantifiable measure of project success for each component could be included in the program objective (for example, participants will gain at least ten points or 20 percent between pre- and posttest for the regular pre-kindergarten program and a higher gain for the pre-kindergarten for the gifted program.

TABLE 1

Participants' Mean Raw Scores
on the Boehm Test of Basic Concepts
Brooklyn College Tutorial Center, 1984-85

	N	Raw Score[a]	% Correct	Gain	%
Pretest	40	25.9	52%	11.9	24%
Posttest	40	37.8	76		

[a] Perfect raw score = 50 points

- All participants achieved a gain of 11.9 points.

#5001-48-53420

COMPUTER WORD PROCESSING PROGRAM, 1984-85

School-Community Education Program
Program Administrator: Jack Isaacs
Project Coordinator: Gil Turchin

Prepared by:
Office of Educational Assessment
New York City Public Schools

PROGRAM DESCRIPTION

The Computer Word Processing Program is designed to improve the writing skills of students at Joan of Arc Junior High School at Community School District (C.S.D.) 3. The goal of the program was to motivate participants by providing them with immediate positive feedback on their work. In order to accomplish this, students were taught to write, edit, and print their work with word processing equipment.

In 1984-85, 90 students, in grades seven through nine, participated in the project. Pupils with average scores on Citywide reading tests were selected for program participation.

A classroom was equipped with eight Apple computers and four printers. A word processing program, written by a professor at Teachers College, was used to help students edit their papers for spelling and grammar mistakes. An additional computer program, CATCH, was also used to edit original text. Participants worked on the computers for 45 minutes every school day throughout the year. Project staff consisted of one instructor. The New York

State Legislature contributed $54 thousand to the program.

The project objective was for 80 percent of the participants to demonstrate an increase in written communication skills. Performance was measured by a Writing Assessment Test.

EVALUATION METHODOLOGY

Evaluation activities focused on the analysis of students pre- and post-program writing scores. Participants' writing samples were holistically rated on a four-point scale, with four assigned to a superior paper, three to a satisfactory or adequate paper, two to a weak paper, and one to a poor paper. Zero was reserved for blank papers and papers off the topic (see Appendix A). Students' gains from pre- to posttest were calculated by grade level and correlated *t*-tests were computed to determine statistical significance.

FINDINGS

Pre- and post-program scores were submitted to the Office of Educational Assessment for 126 students (see Table 1). Participants on all three grade levels achieved statistically significant gains. Overall mean gain was 1.1. Pre-program mean scores by grade level ranged from 1.3 to 1.5; post-program mean scores ranged from 2.3 to 2.6, and mean gains ranged from one to 1.2 points. Except for seven graders, who scored slightly lower than the other two grades, mean scores and gains were similar for all grades.

TABLE 1

Students' Mean Holistic Scores on a Writing Assessment Test, Computer Word Processing Program, 1984-85

Grade	N	Pre-Program		Post-Program		Mean Gain[a]
		Mean	S.D.	Mean	S.D.	
7	73	1.3	.8	2.3	1.1	1.0
8	28	1.5	.7	2.6	.6	1.1
9	25	1.4	.8	2.6	.8	1.2
TOTAL	126	1.4	.8	2.5	.8	1.1

[a] All mean gains were statistically significant at $p \leq .001$.

- Students on all three grade levels made significant gains ranging from 1.0 to 1.2 raw score points.

CONCLUSIONS AND RECOMMENDATIONS

The evaluation findings indicate that the Computer Word Processing Program was successful in meeting its objective. Pupils increased their writing skills, as expected, by the end of the project. However, this conclusion should be taken with caution. Although students improved their performance, gains of about one point seem low after one full year of participation in the program. Post-program mean scores were still below three, the rating for an adequate writing sample. In the future, project staff might want to set a more ambitious program objective aiming for a mean posttest score of at least three points. The objective could also include a statistically significant quantitative gain (for example, participants' mean posttest score will be at least three and/or they will achieve a statistically significant mean gain of at least 1.5 points).

TRAINING MANUAL

FOR GRADE 7, 8, 9

FALL 1982 - '83

WRITING ASSESSMENT

Division of Curriculum & Instruction
New York City Board of Education

RATIONALE FOR THE WRITING ASSESSMENT

It is important to be able to express one's thoughts and feelings clearly in writing. The information obtained from this assessment will help teachers plan instructional programs to be implemented during the year in order to improve student writing performance.

SCORING THE WRITING SAMPLES HOLISTICALLY

The Writing Samples are to be scored holistically. Holistic scoring is that method which assesses writing for its total effect including both content and manner of expression. The student paper is read and its total impact evaluated. The separate elements of writing, such as organization, syntax and spelling, are not as important as the overall quality of the response.

The writing sample is rated on a four-point scale, with 4 assigned to a superior paper, 3 to a satisfactory or adequate paper, 2 to a weak paper and 1 to a poor paper. Zero is reserved for blank papers and papers off the topic. For specific criteria in assigning scores, refer to Criteria for Rating Student Responses (p.6) and to the Graded Model Writing Sample for each rating (p. 9-13).

Ideally, the holistic scoring session is conducted with members of a department, school or district brought together for this purpose. Each paper is scored by at least two teachers who do not know the student's identity or the mark that the other teacher has assigned. The student's final rating is the sum of the two scores.

The first scorer records the score in the first circle at the bottom of the student booklet and initials in the square below the circle (see p. 8). In order to ensure that the second reader will not be influenced by the first reader's judgment, the first filled-in circle and square are folded over or covered up. The second scorer then uses the second circle and square.

A third person then looks at both scores. If the two scores are identical or one digit apart, they are added and the sum recorded in the large circle at the end of the row. For instance, if scores are 2/2 or 2/3, the student's rating is recorded in the large circle as 4 or 5 respectively.

However, if the two scores are discrepant (1/3, 2/4, etc.,), they are both covered or folded over. Then the writing sample is rescored by a third scorer or by the chief reader reading more slowly. This third score is recorded in the next circle. The final score is determined by the method outlined on page 5.

SCORING SESSION

The trainer will:

1. Open writing booklets and shuffle so that no one class set is intact.

2. Distribute the booklets and request scorers to refrain from reading the student's name on the booklet to be scored.

3. Indicate in the writing booklet the circle where the first score is to be recorded and the box below it where the first scorer's initials are to be entered.

4. Demonstrate how to conceal the first score from the second scorer.

5. Have the first scorers read and score the test booklets. Each booklet will be scored from 1 to 4 and the score recorded in the first circle with the scorer's initials entered in the box below that circle.

6. Have the first scorers then pass the scored booklets to the second scorers. The second scorers follow the same procedure as the first scorers but enter the writing sample score and initial in the second circle and box below it.

7. Collect the booklets that have been scored independently by two scorers.

8. Examine or assign personnel to examine all the collected scored booklets to determine the final rating for each booklet. (NOTE: The final rating can range from 0 to 8.)

   a. If the two scores are identical or adjacent (e.g., 2/2 or 2/3), the two scores are added and the sum, which constitutes the student's writing sample rating, is entered in the large circle in the test booklet.

   b. If the two scores are discrepant (e.g., 1/3, 2/4), the recorded scores are both covered and the Writing Sample is rescored by a third scorer or the chief scorer. This third score is recorded in the third circle.

9. Examine or assign personnel to examine all the booklets that have been rescored by a third scorer to determine the final rating for each booklet. The final rating is determined by the method outlined on page 5.

Method for Using Third Rating To Resolve Discrepant Scores

Steps:

a. Compare the three ratings.
b. If two of the three scores agree, drop the discrepant score.
c. If two of the scores are contiguous, drop the most discrepant score.
d. If the third rating is the middle score, double the third rating and drop the two divergent scores.

EXAMPLES:

Rater 1	Rater 2	Rater 3	Resolved scores for response	Reason
1	3	If 1, then	1/1	Agreement (2 of the 3 scores agree, discrepant score dropped)
		If 2, then	2/2	Middle score (Score between divergent scores doubled, divergent scores dropped)
		If 3, then	3/3	Agreement (2 of the 3 scores agree, discrepant score dropped)
		If 4, then	3/4	Contiguous (2 nearest scores used, most discrepant score dropped)
1	4	If 1, then	1/1	Agreement
		If 2, then	1/2	Contiguous scores
		If 3, then	3/4	Contiguous scores
		If 4, then	4/4	Agreement
2	4	If 1, then	1/2	Contiguous scores
		If 2, then	2/2	Agreement
		If 3, then	3/3	Middle score doubled
		If 4, then	4/4	Agreement

#5001-48-53433

COMPUTER LITERACY PROGRAM, 1984-85

School-Community Education Program
Program Administrator: Jack Isaacs
Project Coordinators: Harriett McFeeters
Anton J. Klein
Walter Edge
Robert Carter
Ken Foreman
Edward Gibson
Audrey Satlin

Prepared by:
Office of Educational Assessment
New York City Public Schools

PROGRAM DESCRIPTION

The Computer Literacy Program is designed to provide middle school students with basic computer knowledge and to expose them to career opportunities in the field of computers. In 1984-85, the program served about 1,500 students, in grades three through nine, at the following Community School Districts (C.S.D.s): 8, 11, 12, 14, 27, 28, and 29. School principals selected pupils for participation in the program.

Students attended 45-minute sessions, two or three days a week, for periods of time ranging from two to five months. Classes were held in computer laboratories, containing between five and ten computers and appropriate software that were established in each one of the schools. Class activities focused on computer languages, use of the equipment, and work with pre-programmed Computer Assisted Instruction programs in various curricula areas.

The objective of the program was for 75 percent of the participants to demonstrate an understanding of computer literacy by composing and executing simple programs, executing basic computer commands and identifying careers related to the computer field. Student growth was measured by pre- and posttest outcomes on the Minnesota Group Test.

Project staff consisted of tax-levy teachers already working in the participating schools, and the school principals, who supervised all program activities. The New York State Legislature contributed $201 thousand to pay primarily for computer equipment and instructional supplies.

EVALUATION METHODOLOGY

Evaluation activities focused on the analysis of student performance on a modified version of the Minnesota Group Test. Only Part II of this test was administered as both a pre- and a posttest. This part of the test consists of 45 multiple-choice items on basic computer uses, terms, and applications (see Appendix A).

FINDINGS

This section reports the progress of 1,373 students, from seven C.S.D.s, for whom valid pre- and posttest scores were available. Overall, mean pretest score was 24 (52 percent correct responses); overall mean posttest score was 31 (60 percent correct responses), for a mean gain of 17 percent (see Table 1). Mean pretest scores per district ranged from 41 to 65

TABLE 1

Students' Mean Test Scores[a] on the Minnesota Group Test, Part II, by District Computer Literacy Project, 1984-85

District	N	Pretest Raw Score	Pretest % Score	Posttest Raw Score	Posttest % Score	Percent Gain
8	361	19	41%	26	58%	17%
11	302	24	52	31	69	17
12	202	19	41	33	74	33
14	157	25	56	26	58	2
27	190	27	60	34	75	15
28	59	22	49	26	58	9
29	102	30	65	38	85	20
TOTAL	1,373	24	52	31	69	17

[a] Perfect Score = 45.

- Overall mean pretest correct references was 52 percent; mean posttest was 69 percent, for a gain of 17 percent.

percent; mean posttest scores ranged from 58 to 85 percent; and mean gains ranged from two to 33 percent. Students from C.S.D.s 14 and 28 achieved the lowest gains, two and nine percent, respectively. District 12 achieved the highest gain of 33 percent.

Table 2 shows the percentage of students achieving gains at posttest by district. About 88 percent of all participants achieved gains in all districts, except two. The exception corresponds to C.S.D.'s 14 and 28, where only 68 percent of the students improved their performance at posttest.

CONCLUSIONS AND RECOMMENDATIONS

Student test outcome data show that all project participants improved their performance by 22 percent at posttest. Yet, there was considerable variation in the performance of students from district to district which may have resulted from differences in grade levels and the amount of time students received project services. Unfortunately, it was not possible to check this assumption because the data retrieval forms reported two or more grade levels together.

On the basis of the evaluation findings, however, it was not possible to assess project impact. Students were only administered Part II of a modified version of the Minnesota Group Test which is not the adequate instrument to measure the project's stated objectives ("participants will demonstrate an understanding of computer literacy by composing and executing simple programs, executing basic computer commands, and identifying

TABLE 2

Percentage of Students Achieving Gains at Posttest, by District
Computer Literacy Project, 1984-85

		Gains		No Gains	
District	N	N	%	N	%
8	361	319	88.4	42	11.6
11	302	282	93.4	20	6.6
12	202	193	95.5	9	4.5
14	157	97	61.8	60	38.2
27	190	177	95.2	13	6.8
28	59	40	67.8	19	32.2
29	102	96	94.1	6	5.9
TOTAL	1,373	1,204	87.7	169	12.3

o About 88 percent of the students achieved gains.

multiple-choice test administered to participants cannot measure these objectives. Several project staff members also indicated that students found the test too easy and that the material it covers does not relate to program activities and objectives. In the future, project staff should replace the test with a more adequate one for measuring student progress. The test should reflect project activities and objectives. In addition, the program objective should be rewritten to include a quantifiable measure of project success (for example, 80 percent of the pupils will gain at least 10 percent from pretest to posttest).

PART II

DIRECTIONS: For each of the following questions, circle the letter beside the best answer. If you do not know the answer to a question, do not leave the item blank; circle the letter beside "I don't know." Use the "I don't know" response as little as possible. Use the "I don't know" response only when you don't even have a guess about the best answer. Do NOT leave any item blank that you attempt; either circle the letter beside an answer or "I don't know."

1. Police sometimes use computers to help identify stolen cars.

   a. true
   b. false
   c. I don't know

2. Most hospitals give injections by computer.

   a. true
   b. false
   c. I don't know

3. Computers cannot be used to assist in teaching English grammar.

   a. true
   b. false
   c. I don't know

4. Computers are not really used very much yet except by scientists.

   a. true
   b. false
   c. I don't know

5. Government officials use computers to store and retrieve large amounts of information about citizens.

   a. true
   b. false
   c. I don't know

6. People often use computers to store large amounts of information they wish to use over and over again.

   a. true
   b. false
   c. I don't know

7. Computers help people make decisions by providing correct answers to any question.

   a. true
   b. false
   c. I don't know

8. Computers help people make decisions by telling them if their problem is important.

   a. true
   b. false
   c. I don't know

9. Computers have been used to make more information and products available to the consumer.

   a. true
   b. false
   c. I don't know

10. Computers are used to commit crimes, especially stealing money and stealing or falsifying information.

    a. true
    b. false
    c. I don't know

11. Identification numbers and passwords are a primary means for restricting undesired access to computer files.

    a. true
    b. false
    c. I don't know

12. Use of computers in education always results in less personal treatment of students.

    a. true
    b. false
    c. I don't know

13. Privacy is an issue with files containing personal information about people.

    a. true
    b. false
    c. I don't know

14. The increased use of computers in our society both eliminates and creates jobs.

    a. true
    b. false
    c. I don't know

15. Almost all people in our society are affected in some way by computers.

    a. true
    b. false
    c. I don't know

16. In order to use a computer you would have to be in the same building as the computer.

    a. true
    b. false
    c. I don't know

17. Computers are able to think in every way just like people.

    a. true
    b. false
    c. I don't know

18. Using computers can free one to do more creative tasks, but this may lead to more dependence upon machines.

    a. true
    b. false
    c. I don't know

19. In order to use any computer you would have to use a telephone.

    a. true
    b. false
    c. I don't know

20. In order to use a computer a person must know how to program.

    a. true
    b. false
    c. I don't know

21. Computers are <u>not</u> good for tasks that require:

    a. speed
    b. accuracy
    c. intuition
    d. something to be done over and over again
    e. I don't know

22. If your charge account bill has an error, it was probably caused by:

    a. breakdown of the computer
    b. mistakes made by people
    c. poor design of the computer
    d. general weaknesses of machines
    e. I don't know

23. The main duty of a computer programmer is to:

    a. operate a computer
    b. prepare instructions for a computer
    c. schedule jobs for a computer
    d. design computers
    e. I don't know

24. The computer related job closest to that of a typist is:

a. computer operator
b. keypunch operator
c. systems analyst
d. computer programmer
e. I don't know

25. Which of the following persons is the most likely to be associated with the design of computers?

a. keypunch operator
b. computer operator
c. computer programmer
d. computer scientist
e. I don't know

26. A basic use of computers in libraries involves:

a. information storage and retrieval
b. simulation and modelling
c. process control
d. computation
e. I don't know

27. A basic use for computers in the design of airplanes is:

a. simulation and modelling
b. process control
c. making reservations
d. keeping inventory
e. I don't know

28. The most questionable use of large computer files is:

a. government planning
b. research
c. checking on people
d. administration of social programs
e. I don't know

29. Which of the following is a limiting consideration for using computers?

a. cost
b. software availability
c. storage capacity
d. all of the above
e. I don't know

30. Which is <u>not</u> a characteristic of most information systems?

a. a large volume of information is stored and used
b. the information is organized
c. the basic purpose is to provide reports and summaries of the data
d. they contain only alphabetic data
e. I don't know

31. The decade of first extensive manufacturing of computers was:

a. 1860's
b. 1890's
c. 1920's
d. 1950's
e. I don't know

32. Computer software is a term describing:

a. computer programs
b. electronic components encased in soft plastic or rubber
c. people who work with computers
d. mechanical and electronic parts of a computer system
e. I don't know

33. In addition to input and output equipment, computers contain:

a. terminals, paper, transistors
b. memory units, control units, arithmetic units
c. printers and typewriters
d. telephones, keyboards, television screens
e. I don't know

34. A computer <u>system</u> is best described as:

a. processing
b. programming, input, and output
c. input and output
d. input, processing, and output
e. I don't know

35. The physical parts of a computer are referred to as:

a. programs
b. hardware
c. software
d. manuals
e. I don't know

36. When in operation, a computer:

a. follows a set of instructions written by people
b. thinks just like a person
c. recalls answers from memory
d. translates data from digital to analog code
e. I don't know

37. Computers <u>cannot</u> run without:

a. blinking lights
b. keyboards
c. instructions
d. all of the above
e. I don't know

38. In order to program a computer, a person:

a. can use any English language words
b. can use any English or foreign language words
c. must use programming language numbers, not words
d. must use the words from a programming language
e. I don't know

39. At any given moment, a computer's memory unit can store:

a. programs
b. data
c. answers
d. all of the above
e. I don't know

40. Data processing is best described as:

a. the collection of data
b. producing reports
c. manipulating data according to instructions
d. using punched cards in a keypunch machine
e. I don't know

41. A computer program is a:

a. course on computers
b. set of instructions to control the computer
c. computer generated presentation
d. piece of computer hardware
e. I don't know

42. Computer processing of data may involve:

a. searching
b. summarizing
c. deleting
d. all of the above
e. I don't know

43. The computer must have two types of information to solve a problem:

a. the problem and the answer
b. the name of the program and user number
c. the data and the instructions
d. the name of the program and your name
e. I don't know

44. A newspaper publisher has the following information about subscribers stored in the computer. They are name, address and renewal date. How would you arrange the information to be most useful to the delivery person?

a. ordered listing by address
b. ordered listing by renewal dates
c. alphabetical listing of streets
d. ordered listing by zip code
e. I don't know

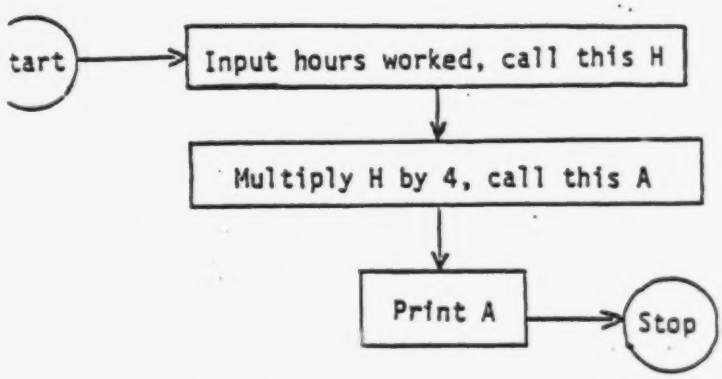
45. Choose the correct output for the procedure described below:

1. List the three names Brown, Anderson and Crane in alphabetical order
2. Remove the last name from the list
3. If only one name is left, stop. Otherwise, go on to step 4
4. List the remaining names in reverse order
5. Go back to step 2

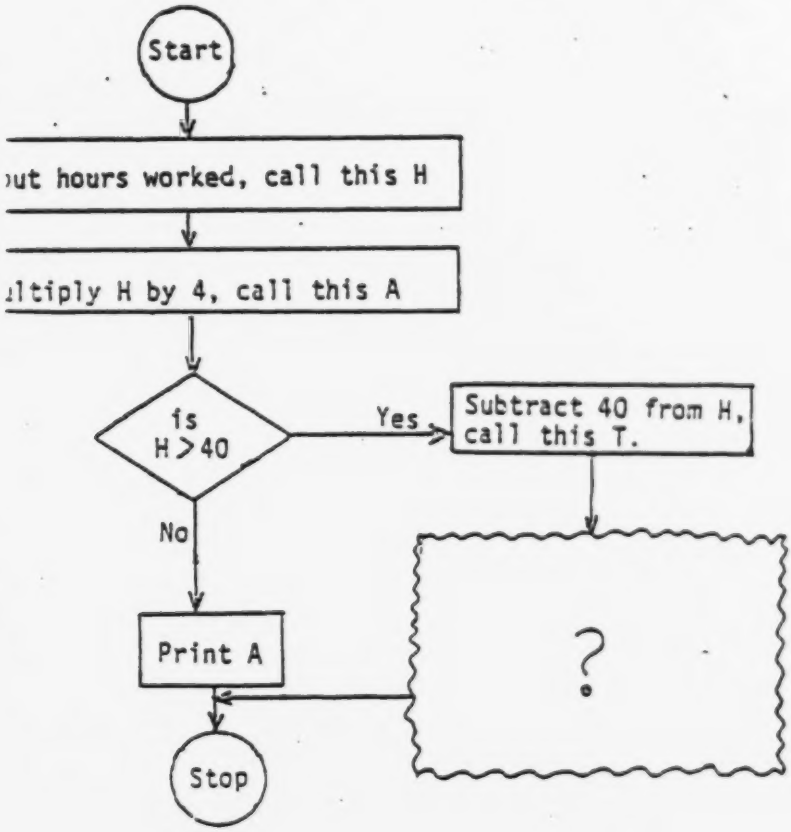
Output

a. Anderson, Brown, Crane
b. Brown
c. Anderson, Brown
d. Anderson
e. I don't know

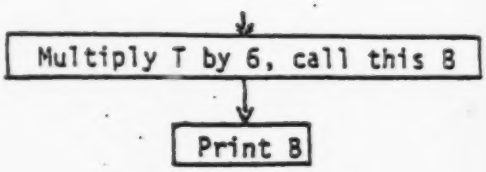
An algorithm (flowchart) to determine the weekly wages of employees in a bakery is shown below. Employees are paid $4 per hour up to 40 hours per week.



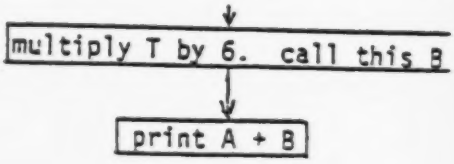
Employees are also paid "time-and-a-half" ($6 per hour) for overtime (hours worked over 40). How would you extend the flowchart below to include overtime pay. Select answer a, b, c, d, or e.



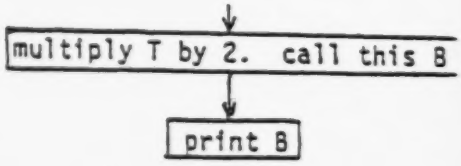
a.)



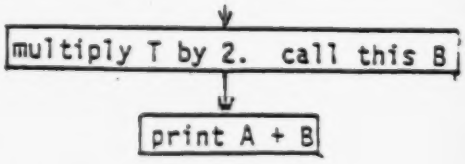
b.)



c.)



d.)



e.) I don't know

DIRECTIONS: If you have never written a computer program, STOP: do NOT answer items 1 - 3 below. Answer items 1 - 3 only if you have written a computer program before.

1. Choose the correct output for the computer program shown below:

```
1       LET A = 3
2       LET B = 4
3       LET C = A
4       LET B = C
5       LET A = B
6       PRINT A,B
7       END
```

Output

a. 3 4
b. 4 3
c. 3 3
d. 4 4
e. I don't know

2. When run on a computer, the following program will:

```
1       INPUT A, B, C, D, E
2       LET S = A+B+C+D+E
3       LET M = S/5
4       PRINT S,M
5       END
```

a. Calculate the sum of five input values
b. Calculate the average of five input values
c. Print the sum and average of five input values
d. all of the above
e. I don't know

#5001-48-53443

PARENT COOPERATIVE NURSERY PROGRAM, 1984-85

School-Community Education Program
Program Administrator: Jack Isaacs
Project Coordinator: David Levy

Prepared by:
Office of Educational Assessment
New York City Public Schools

PROGRAM DESCRIPTION

The Parent Cooperative Nursery Program is designed to identify emotional and cognitive problems among pre-school children to prevent future learning disabilities which are often found among kindergartners from low-income neighborhoods. In 1984-85, the project was implemented in two pre-school centers in Community School District 7: one at PS 30 and the other one at PS 156.

PROGRAM OBJECTIVE

The program objective anticipated that 75 percent of the children would demonstrate an increase in their cognitive functioning by achieving higher posttest than pretest scores on the Boehm Test of Basic Concepts.

POPULATION SERVED

Admission to the program is open to children of neighborhood residents but preference is given to four-year-old applicants whose siblings had previously participated in the program. Prospective participants were screened and diagnosed for medical

and cognitive development. Parents of the selected children also participated and assisted in classroom activities. Three parents were present during each session following a rotational schedule.

PROGRAM ORGANIZATION AND FUNDING

Project staff included two teachers; one of whom was also responsible for coordinating program activities at both sites. The New York State Legislature contributed $108 thousand to the program.

Each pre-school center conducted two half-day sessions, one in the morning and one in the afternoon, every week. Approximately 15 children were enrolled in each session. Project activities included listening and speaking, art, music, and the use of manipulative materials to develop mathematics and reasoning skills.

EVALUATION METHODOLOGY

Evaluation activities focused on the analysis of the children's performance on the Boehm Test of Basic Concepts (1971). This is a standardized test designed to measure a child's mastery of 50 basic language concepts considered a prerequisite for a child to profit from school instruction. The test was administered as both a pre- and posttest in October, 1984, and May, 1985, respectively.

FINDINGS

Raw pretest and posttest scores were submitted for 58 children (see Table 1). At both pre-school centers, children

TABLE 1

[a]

Students' Mean Scores on the
Boehm Test of Basic Concepts, by School
Parent Cooperative Nursery, 1984-85

		Mean Scores				
		Pretest		Posttest		
School	N	Raw Score	Percent Score	Raw Score	Percent Score	Percent Gain
PS 30	27	15	30%	31	62%	32%
PS 156	31	9	18	27	54	36
TOTAL	58	12	24	29	58	34

[a] Perfect Raw Score = 50

- Children at both schools made posttest gains.

achieved significant gains. Participants at PS 30 made a mean pretest raw score of 15; posttest score was 31, and they achieved a mean gain of 32 percent. Children at PS 156 made a mean pretest raw score of nine points, mean posttest score was 27, for a mean gain of 36 percent. The data also show that all participants (100 percent) achieved gains.

CONCLUSIONS AND RECOMMENDATIONS

The data indicate that the Parent Cooperative Nursery Program was a successful project having a significant impact on children's performance. However, the evaluation of the project remains problematic because its objective does not specify how much of a gain children are expected to achieve.

Based on the evaluation findings, the following recommendation is made:

- The program objective should specify a quantitative gain. According to the 1984-85 test outcomes, the Office of Educational Assessment suggests that the anticipated achievement gain should be of at least 30 percent.

#5001-48-53446

PRE-SCHOOL GIFTED AND TALENTED AT BROOKLYN COLLEGE TUTORIAL CENTER, 1984-85

School-Community Education Program
Program Administrator: Jack Isaacs
Project Coordinator: Paula Longo

Prepared by:
Office of Educational Assessment
New York City Public Schools

PROGRAM DESCRIPTION

The Pre-School Gifted and Talented at Brooklyn College Tutorial Center Project is designed to foster the creativity and problem-solving skills of gifted pre-kindergarten children. Another component of the project provides theoretical instruction on child growth to parents of participating children.

In 1984-85, two groups of children participated in the program. One of these groups consisted of 16 three-year-old children; the other group was formed by 20 four-year-old children.

PROGRAM OBJECTIVE

The program objective for both groups of participants was for children to achieve an increase in their knowledge of basic concepts. The performance of three-year-old participants was measured by their pre- and posttest scores on the Boehm Test of Basic Concepts. The Circus Test was administered to four-year-old children to measure their growth.

POPULATION SERVED

Admission to the program is open to children of Brooklyn residents. Gifted children are selected according to their performance on the Slosson Intelligence Test and a screening test conducted by the center. Participants in the Gifted Pre-Kindergarten Program must be two years and nine months to three years and eight months of age. Children selected for participation in the regular Pre-Kindergarten Program must be three years and nine months to four years and eight months of age. In addition, parents of the children enrolled in the program participate in the Parent Workshops.

PROGRAM ORGANIZATION AND FUNDING

The program staff included one regular teacher, an hourly teacher, and a family worker. The New York State Legislature contributed $50 thousand to pay for their services.

Teaching activities were designed to provide a stimulating educational environment conducive to exploration and creativity. Enrichment activities focused on communication arts, mathematics, science and music. Children attended about three hours of instruction five days a week. The children's parents participated in the Systematic Training for Effective Parenting (STEP) workshops which helped them to assist their children in their homes.

EVALUATION METHODOLOGY

Evaluation activities focused on the analysis of the

children's pre- and posttest scores on two tests. Three year-old participants were administered the Boehm Test of Basic Concepts which measures school readiness skills. The highest possible score on this test is 50 points. Data on this test are reported in raw scores. Four-year-old participants were administered two subtests of the Circus Test: "Listen to the Story" (A and B) and "How Much and How Many" (A and B). These subtests of comprehension and quantitative skills were designed for gifted preschoolers. Each subtest of the Circus Test consists of two different forms: Form A is administered as a pretest and Form B as a posttest. Participants' raw scores on the Circus Test were converted to standard scores that permit comparisons of test scores when different forms of a test have been administered.

FINDINGS

Pre-test and posttest raw scores on the Boehm Test were submitted for 16 three-year-old children (see Table 1). Mean raw pretest score was 24 (48 percent correct responses); mean posttest score was 37 (74 percent correct responses), for a gain of 26 percent.

Pretest and posttest scores on both subtests of the Circus Test were submitted for 20 gifted pre-kindergarten children (see Table 2).

TABLE 1

Three-year-olds Mean Raw Scores on the Boehm Test of Basic Concepts[a] Pre-School Gifted and Talented at Brooklyn College Tutorial Center, 1984-85

	N	Mean Scores: Raw Score	Mean Scores: Percent Score	Percent Gain
Pretest		24	48%	
	16			26%
Posttest		37	74%	

[a] Perfect Raw Score = 50

- Children achieved a gain of 26 percent.

TABLE 2

Four-year-olds Mean Standard Scores on the "Listen to the Story"[a] and the "How Much and How Many"[b] subtests, Circus Test Pre-School Gifted and Talented at Brooklyn College Tutorial Center, 1984-85

		Mean Standard Scores		
Subtest	N	Pretest	Posttest	Gain
Listen to the Story	20	207	228	21
How Much and How Many	20	196	237	41

[a] Perfect score ("Listen to the Story") Form A = 25
Form B = 38.

[b] Perfect score ("How Much and How Many") Form A = 40
Form B = 58.

- On the "Listen to the Story" subtest, children achieved a gain of 21 standard scores and on the "How Much and How Many" they achieved a gain of 41 standard scores.

Mean pretest score on the "Listen to the Story" subtest was 207 standard scores, mean posttest was 228, for a gain of 21 standard scores. On the "How Much and How Many" subtest children scored a mean pretest of 196 standard scores, a mean posttest of 237, achieving a gain of 41 standard scores.

CONCLUSIONS AND RECOMMENDATIONS

The Pre-School Gifted and Talented Project was successful as both groups of children made significant gains on the Boehm and on the Circus tests. The most impressive gain was obtained on the "How Much and How Many" subtest. Nevertheless, the evaluation could be improved if the objective stated a specific quantitative gain and if it sought to assess the impact of the project on parents participating in the STEP workshops.

The following recommendations are made for program improvement:

- Specific quantitative gains should be included in the objective. It is suggested that for three-year-old pre-kindergarteners, the mean gain on the Boehm Test should be of at least 25 percent. For four-year-old participants, the objective could anticipate a mean gain of 20 standard scores on the "Listen to the Story" subtest and a gain of 30 on the "How Much and How Many" subtest.

- An evaluation design for the program's Systematic Training for Effective Parenting component could be considered.